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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,399	03/24/2004	Yoichi Yamada	Q80518	3516
23373	7590	06/14/2005		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER SMITH, RICHARD A	
			ART UNIT 2859	PAPER NUMBER

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/807,399

Applicant(s)

YAMADA ET AL.

Examiner

R. Alexander Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 27-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20040324.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Election/Restriction*

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

- I. Claims 1-26 drawn to an image forming apparatus classified in class 399, subclass 227.
- II. Claims 27-44 drawn to an image forming apparatus classified in class 399, subclass 110.
- III. Claims 45-55 drawn to a developing device classified in class 399, subclass 103.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none of the claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. By a voice mail message left by Ms. T. Johnson for Examiner Smith on May 31, 2005, a **provisional election was made without traverse** to prosecute the invention of **Group I, claims 1-26**. Affirmation of this election must be made by applicant in replying to this Office action. **Claims 27-55** are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 6,023,599 to Matsuzaka et al.

Matsuzaka et al. discloses the limitations of claims 1, 3-9 and 12 when:

The halt position is a temporary halt and a standby position which is the home position as described in column 8, lines 44-58 and rotational movement occurs at least once when the apparatus starts or ends.

The temporary halting is considered to be the developing position for any of the containers, the other positions and/or the home position.

The developer bearing body is 41 and the developer supplying member is as disclosed in column 1, lines 37-41.

With respect to claim 5 and the positioning, see the position of 50 for 10Y and 10C of which each developer container 10Y,K,C,M will take. With respect to the temporary halting, this limitation will be met when the rotating body stops to print each color. Furthermore, the applicant should note that it is unclear to the examiner if the rotary body stops should monochromatic printing be employed; however, column 7, lines 4-33 discloses the use of positions D, E, F and G in movement of the toner. Temporary halting may be necessary to get the toner to flow consistently back to chamber 55.

The partitioning wall being any one of the positioning walls shown in figure 7, such as 57 with 56 and the angle being less than 90° as shown at 10C.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaka et al. in view of U.S. 6,324,352 to Suzuki.

Matsuzaka et al. teaches all that is claimed as discussed in the above rejections of claims 1, 3-9 and 12 except for a computer and a display device connected to the computer.

Suzuki discloses an image forming system having a computer and a display device (figure 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the image forming system, taught by Matsuzaka et al., to include a computer and a display, as suggested by Suzuki, in order to allow a user to control and monitor the status of the image forming system.

7. Claims 2, 14-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaka et al. in view of U.S. 6,324,352 to Suzuki.

Matsuzaka et al. teaches all that is claimed as discussed in the above rejections of claims 1, 3-9 and 12 except for:

said image forming apparatus causes rotational movement of said rotating body every time a number of sheets of media on which the images have been formed reaches a predetermined number of sheets;

said image forming apparatus causes rotational movement of said rotating body at a predetermined frequency when said image forming apparatus continuously forms images on a plurality of number of sheets of media using the developer of a single color contained in one of said developer containers attached to said rotating body; and the predetermined frequency after a number of sheets of media on which the images have been continuously formed has reached a predetermined number of sheets is higher than the predetermined frequency before said number of sheets reaches said predetermined number of sheets;

said image forming apparatus causes rotational movement of said rotating body every time said number of sheets of media on which the images have been continuously formed reaches a unit number of sheets; and the unit number of sheets after said number of sheets of media on which the images have been continuously formed has reached said predetermined number of sheets is smaller than the unit number of sheets before said number of sheets reaches said predetermined number of sheets; and

the rotational movement of said rotating body is one revolution; and said image forming apparatus temporarily halts said rotating body at least once during one revolution of said rotating body.

Matsuo et al. discloses that constant printing of a single color can adversely affect the surface condition of the developer roller, the image developing means, the density fluctuations and image quality; and the developing rollers not in use. Matsuo et al. discloses that a paper

counting sequence can be used wherein an initial counting is compared to a Pset value for the initial printing, i.e., a predetermined number of sheets and a predetermined frequency, and further paper counting can be compared to another Preset value, i.e., a unit number of sheets, in order to reset the developer(s) as discussed throughout the specification and in particular from column 6, line 24 through column 7, line 49. Matsuo et al. further discloses that the set and resetting operation may simply consist of the startup initiation for that apparatus (column 7, lines 19-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus, taught by Matsuzaka et al., to include rotational movement of said rotating body every time a number of sheets of media on which the images have been formed reaches a predetermined number of sheets; to cause rotational movement of said rotating body at a predetermined frequency (this being an inverse functional relationship of the number of sheets) when said image forming apparatus continuously forms images on a plurality of number of sheets of media using the developer of a single color contained in one of said developer containers attached to said rotating body; and the predetermined frequency after a number of sheets of media on which the images have been continuously formed has reached a predetermined number of sheets is higher than the predetermined frequency before said number of sheets reaches said predetermined number of sheets; and causes rotational movement of said rotating body every time said number of sheets of media on which the images have been continuously formed reaches a unit number of sheets; and the unit number of sheets after said number of sheets of media on which the images have been continuously formed has reached said predetermined number of sheets is smaller than the unit number of sheets before said number of



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sheets reaches said predetermined number of sheets, as suggested by the Pset, Preset and the normal startup operation of the apparatus as taught by Matsuo et al., in order to restore the surface condition of the developer roller, the image developing means, to improve image quality due to density fluctuations; and to keep the other developing rollers ready for faster response when needed.

With respect to claim 16 and the rotational movement of said rotating body is one revolution; and said image forming apparatus temporarily halts said rotating body at least once during one revolution of said rotating body: This limitation is inherently met by the use of the particular developing unit of Matsuzaka et al. being used, e.g. black, and then rotated 360° and halted to reset and continue using the particular developing unit.

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaka et al. and Matsuo et al. as applied to claims 2, 14-22 and 25 above, and further in view of U.S. 6,324,352 to Suzuki.

Matsuzaka et al. and Matsuo et al. together teach all that is claimed as discussed in the above rejections of claims 2, 14-19 and 25 except for a computer and a display device connected to the computer.

Suzuki discloses an image forming system having a computer and a display device (figure 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the image forming system, taught by Matsuzaka et al. and Matsuo et al., to include a computer and a display, as suggested by Suzuki, in order to allow a user to control and monitor the status of the image forming system.

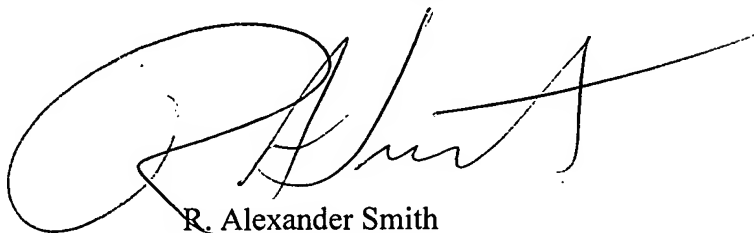
*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related apparatuses.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



R. Alexander Smith  
Primary Examiner  
Technology Center 2800

RAS  
June 13, 2005